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### ABSTRACT OF THE DISCLOSURE

A zero-valent metal emulsion is used to dehalogenate solvents, such as pooled dense non-aqueous phase liquids (DNAPLs), including trichloroethylene (TCE). The zero-valent metal emulsion contains zero-valent metal particles, a surfactant, oil and water. The preferred zero-  
5 valent metal particles are nanoscale and microscale zero-valent iron particles